

The Impact of Information Asymmetry on the Capital Cost Companies

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Abstract— The impact of information asymmetry on the capital cost companies a lot of the issues that this has caused in financial literature. The aim of this study was to evaluate the effect of information asymmetry on the capital cost companies listed on the Stock Exchange in Tehran. To this end, four different criteria were analyzed including cost of capital, cost of common stock, retained earnings cost of capital, cost of debt and the weighted average cost of capital. The results of 94 companies during 2008-2014 using combined data suggest that the information asymmetry and two other criteria weighted average cost of capital, the cost of capital, retained earnings and cost of capital, there is no significant relationship. Based on the above results, it can be said that the definition of operating capital expenditure on the presence or absence affects the relationship.

Index Terms— Information Asymmetry, Cost of Common Stock, Retained Earnings Cost of Capital, Cost of Debt and the Weighted Average Cost of Capital.

I. INTRODUCTION

One of the factors in the decision, the right information and the relevant decision. If the information required to be distributed asymmetrically between individuals, can lead to different results than the single subject. So before you of love for one's decision-making is important, the quality of information distribution that should be examined (Ghaemi and Vatanparast, 2004). One of the important points about the exchange, discussion of market efficiency, according to which all the information available in the market, its effect on stock prices reflects. Perhaps from the perspective of the efficient market hypothesis, stating that because of accounting information asymmetry, where one of the parties to the transaction, holds more information than the other party. This is because there is information in the group (Ahmadpoor and Ajam, 2005). To identifying and establishing optimal capital structure or it can move to the corporate value and shareholder wealth affect (Osmani, 2003). The cost of capital is one of the most important and most key tools in many financial and management decisions that are influenced by many factors. Financial leverage, profitability, Shareholders, board composition, type of business, liquidity and size of the most important factors with respect to the ability to attract investment and financing. One of the most important pillars of the company are required to stay in the market today Qabty

are active and extensive capital market and investors in such markets is one of the undeniable needs for national economic growth countries. Usually when new information is published by the companies in the market, this information by analysts, investors and other users of the analysis, and based on that, the decision to buy or sell shares done. O'Hara (2003) and Easley and O'Hara (2004) argue that information asymmetry and the impact on prices as an indicator of corporate capital spending. They state that the information asymmetry between traders leads to the various and diverse portfolios held by them. Therefore, traders have the information; they will try to hold assets that can compensate for the weakness of disparate data. This will lead to higher prices of stocks that the information asymmetry, declined, reducing their liquidity and trade them at the time of purchase and sales increase. Trading costs paid by investors for additional, more rewarding demand and thus increase the cost of capital associated with the company. By reducing the information asymmetry by disclosing personal information, and improve the quality of disclosure, companies will be able, asymmetric information and transaction costs securities and thus reduce the cost of capital (Amihoo and Mendelson, 1986). According to the research carried out, the outcome is still the problem of information asymmetry in capital markets and especially is concerned its relation to the accuracy of information provided to shareholders and the cost of capital. The aim of this study was to investigate the effects of information asymmetry between investors on the capital cost companies listed on the Stock Exchange in Tehran.

II. RESEARCH LITERATURE

Easley and O'Hara (1992) found that when information asymmetry, also will increase the rate of turnover. Kim and Verchia (1994) in their study found that if some traders are able to process information better, information asymmetry may remain at a high level. Verchia (2001) the optional disclosure of test data and concluded that if the disclosure is made for all investors, asymmetry of information as well as efforts to reduce costly data collection for investors. Bollen and Voly (2004) using a simple model showed that the price difference between the purchase and sale of shares resulting from changes in stock prices, the cost of the order, 634 cost of maintenance, improper selection and competitive conditions. Hughes, Jun Liu and Liu (2005) showed that high information asymmetry leads to a high risk premium and thus leads to a higher cost of capital will be. Lambert, Leuoz and Verchia (2006) examined the association between asymmetry of information, accuracy of information and their cost of capital. They stated that the accuracy of information and information asymmetry effects on the cost of capital are distinct and separate. In a market of imperfect competition, information asymmetry willing to provide liquidity to the market impact

Manuscript received July 07, 2015

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that this will affect the company's cost of capital. For this, Koowak and Beh Wang (2008) in a study entitled "The cost of common stock and corporate governance", the relationship between the cost of common stock and corporate governance, between 2001 and 2004, South Korea began. The results of their study showed that the cost of common stock and corporate governance there is a negative relationship. Protection of investor rights is the most effective in reducing the cost of common stock. Board of Directors and disclosure policies are also important in reducing the cost of common stock. Fu, Kraft and Zihang (2008) by the company between 1951 and 1973, the impact of the financial reporting period based on information asymmetry and cost of capital were examined. The results showed that the higher the frequency of reporting to reduce information asymmetry and the cost of capital. Also in the rotation mandatory reporting when changes occur, the results did not differ. Armstrong, blind, and Verchia Taylor (2010) Effects of information asymmetry between investors on the capital cost of the test. When the capital market is fully competitive, information asymmetry effect on the cost of capital will be separate. The result is when the market is in a state of imperfect competition would prevail. In other words, information asymmetry has a positive relationship with the company's cost of capital is when the market is in a state of perfect competition and no competition between the two when the market is not perfect, does not exist. The results show that the market competition is one of the important variables is the relationship between information asymmetry and cost of capital. Sine and Herman (2010) in their study of the relationship between disclosure of information, the cost of capital and information asymmetry were examined. The results of their study showed a significant negative correlation between the equity cost of capital and the level of disclosure sectors. Also, a significant positive correlation between the equity cost of capital and the effects of information asymmetry. In other words, when the high information asymmetry leads to a strong and significant negative relationship between the cost of equity capital and is part of the disclosure. Pong Hey, Lipon and Lang (2013) in their study of the relationship between information asymmetry and cost of common stock in companies listed on the Australian Stock Exchange examined. The results indicate a significant positive relationship between information asymmetry and the expected return on investment. The instability in forecasting revenues to increase in cost of common stock was companies. In other words, asymmetric information and uncertainty information is leading to higher cost of capital.

Research question

The main question now is whether the asymmetry of information on the cost of capital affects companies? In other words, the information asymmetry and cost of capital companies there is a significant relationship?

In order to achieve the objectives of the study and according to literature will test the following hypotheses:

First hypothesis: the asymmetry of information and there is a significant relationship between the cost of common stock.

The second hypothesis: there is a significant relationship between information asymmetry and cost of debt.

The third hypothesis: the asymmetry of information and the cost of capital, retained earnings, there is a significant relationship.

The fourth hypothesis: the asymmetry of information and weighted average cost of capital, there is a significant relationship.

The population of the investigation, all companies listed on Tehran Stock Exchange during the period 2008 to 2014. Companies investigated by the FA and are selected according to the following: By the end of March 2005 are listed on the stock exchange. Fiscal year ending in March is surveyed companies.

The financial information needed for this research exist in the studied time period.

According to the survey, the number 94 is eligible to participate in the study period and were selected and analyzed.

III. RESEARCH METHOD

Data is based on actual figures and market shares and the company's financial statements. In this study, to collect data and information, the library method is used.

In this study, the type of data and methods of analysis, the combination of the data is used. The combination of data, using a combination of cross-sectional views during several periods of time. Correlation and regression analysis to examine the research hypotheses have been used. The test research hypotheses with Stata version 9 and Eviews software is version 3.

Independent variables in this study, is information asymmetry. To calculate the asymmetry of information is used for the model proposed by Vinektash and Chiang (1986). Using this model, we can determine the price of buying and selling shares. This model is as follows:

$$\text{SPREAD} = 1 / D [\Sigma (\text{AP}-\text{BP}) / (\text{AP} + \text{BP}) / 2]$$

SPREAD= range of price differences between buying and selling stock

D =number of trading days during the year

ASK PRICE (AP) = Average daily sales of the company's stock price i in the study.

BID PRICE (BD) = Average daily price best buy stake in i in the study.

"Most Bid" as "Best Bid" and "low price sales" as "the best price selling" The day has been et.

The dependent variable of this study, the cost of capital. In this study, 4 standard cost of common stock, retained earnings cost of capital, cost of debt and the weighted average cost of capital, is used as dependent variables. Control variable to assess the impact of information asymmetry cost of capital, the impact of variable size, financial leverage and controlled growth. The definition of each is as follows:

Financial leverage ratio of debt to total assets is size according to inflationary conditions and historical figures irrelevance assets, in this regard, the company's sales have been used to measure the size of the company; and Growth logarithm of 1 plus the percentage change in the book value of equity.

According to the above definitions, model assumptions are as follows:

$$Y = \beta_1 X + \beta_2 Z_1 + \beta_3 Z_2 + \beta_4 Z_3 + c$$

Y: is a measure of the cost of capital

X: asymmetries of information

Z1, Z2, Z3: control variables

$\beta_1, \beta_2, \beta_3, \beta_4$: variable coefficients

In analyzing the data, descriptive statistical variables and assumptions presented the results of the test.

SD	Mean	Number	Variables
0.01288	0.0188	658	Information inasymmetry
6318918	2523520	658	The cost of capital of ordinary shares
1.54e+08	19658542	658	The cost of retained earnings
1.3240	0.0844	658	The cost of debt
1.64e+21	206e+20	658	Weighted average cost of capital
0.1770	0.6184	658	Financial leverage
6679741	1317780	658	Size
0.1974	0.073892	658	Growth

Table 1: Descriptive statistics variables

Significance	t-statistic	Standard error	Variable Coefficients	Variables	The first hypothesis
- 0.025	-2.28359	1763001	-39468321	β_1	Information asymmetry
0.001	6.808	2200420	14980603	β_2	Financial leverage
0.387	-0.274	0.94	-0.026	β_3	Size
0.170	0.373	1112691	-1527942	β_4	Growth
0.0001	- 4.151	1409533	-5851837	C	Constant
Adjusted Coefficient	Determination Coefficient	Durbin-Watson	Significant F	F	Statistic weight
0.392	0.458	1.65	0.000	5.371	

Table 2: Results of the first hypothesis test (dependent variable cost of common stock)

Significant	t-statistic	Standard Error	Variable Coefficients	Variable	The second hypothesis
0.233	-1.192	20.5e+08	-6.20e+08	β_1	Information asymmetry
0.15	1.43	64910741	93266183	β_2	Financial leverage
0.0001	5.34	2.79	14.90	β_3	Size
0.028	-2.197	32823563	-72129821	β_4	Growth
0.328	0.978	41580184	-40675184	c	Constant
Adjusted Coefficient	Determination Coefficient	Durbin-Watson	Significant F	F	statistic weight
0.108	0.239	1.608	0.000	1.821	

Table 3: The results of the second hypothesis (dependent variable cost of capital retained earnings)

The Impact of Information Asymmetry on the Capital Cost Companies

Significant	t-statistic	Standard Error	Variable coefficients	Variable	The third hypothesis
.017	2.385	3.066	7.315	β_1	Information asymmetry
0.002	-3.030	0.382	-1.159	β_2	Financial leverage
0.0001	22.817	-1.65e+08	-3.75e+07	β_3	Size
0.0001	-7.98	0.193	-1.54	β_4	Growth
0.247	1.156	0.245	0.28	C	Constant
Adjusted Coefficient	Determination Coefficient	Durbin-Watson	Significant F	F	Statistic weight
.58	.64	2.12	0.000	10.39	

Table 4: The third hypothesis test results (dependent variable cost of debt)

Significant	t-statistic	Standard Error	Variable Coefficients	Variable	The fourth hypothesis
0.11	-1.56	3.92e+20	-6.67e+20	β_1	Information asymmetry
0.479	0.707	5.32e+20	3.76e+20	β_2	Financial leverage
0.063	1.859	1.859	2.29e+12	β_3	Size
0.0022	0.076	2.69e+20	1.28e+20	β_4	Growth
0.9575	-0.0533	3.41e+20	1.82e+19	C	Constant
Adjusted Coefficient	Determination Coefficient	Durbin-Watson	Significant F	F	Statistic weight
0.47	0.549	1.678	0.0001	7.0388	

Table 5: results of the fourth hypothesis testing (dependent variable weighted average cost of capital)

Statistical significance level t (0.95 confidence level) of the independent variable coefficients (B1) shows that the asymmetry of information and criteria there is a significant relationship between the cost of common stock and debt costs. The information asymmetry between retained earnings and weighted average cost of capital and cost criteria, there is no significant relationship. Therefore, due to the significant independent variables, the first and third hypotheses are accepted, and the second and fourth hypotheses are rejected.

DISCUSSION AND CONCLUSION

The aim of this study was to evaluate the effect of information asymmetry on the capital cost companies listed on the Stock Exchange in Tehran. The information asymmetry can lead to reduced stock liquidity and trading costs and the question of increasing the cost of capital companies will follow. For this purpose, four hypotheses were tested design. In this study, information asymmetry as an independent variable, the cost of common stock, debt costs, cost of capital, retained earnings and weighted average cost of capital as the dependent variable was analyzed the relationship between these variables in terms of financial leverage, firm size and Growth control. Cost of capital, retained earnings and weighted average cost of capital, there is no significant relationship. The results of the first and third hypothesis of this study with the results of research Lambert, Lyvz and Verchia (2006), sine and Herman (2010), Armstrong, blind, and Verchia Taylor (2010) and Pong Hey, Lipan and Lang (2013) matches. Because there is no significant relationship between information asymmetry

and capital costs associated with retained earnings can be linked to the domestic nature of this method of financing. In other words, the cost of common stock and debt cost of capital to shareholders and creditors directly affected by the expectations placed, but it can be related to the cost of capital have less effect from retained earnings now.

SUGGESTIONS FOR FUTURE RESEARCH

Examine the possible influence of other variables on the relationship between information asymmetry and cost of capital. The use of other models such as the capital asset pricing model to calculate the cost of capital, to investigate the possible influence of other variables on the relationship between information asymmetry and cost of capital.

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